

REMARKS

Claims 17-81 are pending in the present application. In the Office Action dated February 27, 2006, claim 25 was rejected under 35 U.S.C. § 112, ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as their invention. Claims 17-19, 31 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,962,941 to Kober ("Kober") in view of U.S. Patent No. 4,580,374 to Quinnell ("Quinnell"). Claims 20-22 and 33-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kober in view of Quinnell and U.S. Patent No. 4,246,815 to Hugo ("Hugo") when taken in view of the Applicants' admitted prior art. Claims 23-25 and 56-58 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kober in view of Quinnell and U.S. Patent No. 4,985,119 to Vinson et al. ("Vinson"). Claims 26-30 and 59-61 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kober in view of Quinnell, Vinson and Hugo when taken in view of the applicants' admitted prior art.

The embodiments disclosed in the present application will now be discussed in comparison to the cited references. Of course, the discussion of the disclosed embodiments, and the discussion of the differences between the disclosed embodiments and the cited references, does not define the scope or interpretation of any of the claims. Instead, such discussed differences merely help the Examiner appreciate important claim distinctions discussed thereafter.

According to one embodiment, a method of forming a plurality of holes in a fiber-cement panel is disclosed. A fiber-cement panel having a length, width, and thickness is provided. The fiber-cement panel is placed between a support assembly and a punch assembly. An actuator drives punches of the punch assembly into the fiber-cement panel until the punches penetrate through at least a portion of the fiber-cement panel to form a plurality of holes. In some embodiments, a resilient biasing element is attached to each of the punches. In operation, the resilient biasing element is compressed against the fiber-cement panel as the punches penetrate the fiber-cement panel to enable withdrawing the punches from the fiber-cement panel without delaminating portions adjacent the holes. When an end of the resilient biasing element is compressed against the fiber-cement panel, a lateral peripheral surface of the resilient biasing element is allowed to be displaced outwardly laterally because it is not constrained.

The combination of Kober, Quinnell, and the other cited references do not teach using a punch assembly to form soffits from a fiber-cement panel as disclosed in applicants' embodiments. Kober is cited for teaching a method of forming a hole in fiber panel using a punch assembly. Quinnell is cited for purportedly teaching a soffit and fascia system formed of cement-based asbestos boards for use as soffit boards. The examiner asserts that the combination of Kober and Quinnell would lead one of ordinary skill in the art to use the punched fiber panels of Kober as a soffit as taught by Quinnell.

As a whole, the combination of Kober and Quinnell fails to teach such subject matter. The sections of Quinnell cited to provide the teaching to use the fiber panels of Kober as a soffit are col. 1, lines 15-28 and col. 2, lines 25-38. However, col. 1, lines 15-28 does not teach using a fiber panel with a plurality of holes therein. The section of Quinnell cited at col. 2, lines 25-38 also does not teach using a fiber panel with a plurality of holes therein as a soffit. Instead, this section expressly teaches away from using fiber panels with holes therein as taught by Kober as a soffit because Quinnell teaches that the formation or "production of slots adds to expense, which for a low-cost system using cement based soffits can be an important factor." (Quinnell, col. 2, lines 30-33). Therefore, Quinnell expressly teaches that in cement-based soffit systems, providing ventilation by forming holes in a cement panel is costly and not practicable. Accordingly, the combination of Kober and Quinnell clearly teaches away from the combination asserted by the Examiner and disclosed by Applicants' embodiments. If Kober and Quinnell are in fact combinable, the combination would teach one of ordinary skill in the art to form slots or holes in the plastic ventilator panel 18 of Quinnell using the punching method of Kober. The other cited references do not remedy this deficiency in Kober and Quinnell.

Turning now to the claims, the patentably distinct differences between the cited references and the claim language will be specifically pointed out. Claim 17 recites, in part, "providing a fiber-cement panel having a length, a width and a thickness, wherein the thickness is approximately 0.25-0.625 inch; placing the fiber-cement panel between a punch assembly and a support assembly, the punch assembly having a punch plate and a plurality of punches coupled to the punch plate, and the support assembly having a support plate with a plurality of holes; and driving the punches at least substantially simultaneously into and through at least a portion of the thickness of the fiber-cement panel to form a plurality of apertures in the fiber-cement panel by

ejecting plugs from the fiber-cement panel through the holes in the support plate.” As discussed above, the combination of the cited references as a whole does not teach or fairly suggest punching holes in a fiber-cement panel to form a soffit. Therefore, claim 17 and claims dependent therefrom are patentable over the cited references.

Claim 23, recites, in part, “providing a fiber-cement panel having a thickness of approximately 0.25 to 0.625 inch, the fiber-cement panel comprising cement, cellulose material, and a binder; placing the fiber-cement panel between a punch assembly and a support assembly, the punch assembly having a punch plate and a plurality of punches coupled to the punch plate, and the support assembly having a support plate with a plurality of holes; driving the punches at least substantially simultaneously through at least a portion of the thickness of the fiber-cement panel to form apertures in the fiber-cement panel by ejecting plugs from the fiber-cement panel through the holes in the support plate; and withdrawing the punches from the fiber-cement panel without delaminating the fiber-cement panel at the apertures.” As discussed above, the combination of the cited references as a whole does not teach or fairly suggest punching holes in a fiber-cement panel to form a soffit. Therefore, claim 23 and claims dependent therefrom are patentable over the cited references.

Claim 31, recites, in part, “placing a fiber-cement panel between a punch assembly and a support assembly, the punch assembly having a punch plate and a plurality of punches projecting from the punch plate, and the support assembly having a support plate with a plurality of holes; and forming a plurality of apertures in the fiber-cement panel at least substantially simultaneously by driving the punches at least substantially simultaneously through only a portion of the fiber-cement panel without passing the punches completely through the panel.” As discussed above, the combination of the cited references as a whole does not teach or fairly suggest punching holes in a fiber-cement panel to form a soffit. Therefore, claim 31 and claims dependent therefrom are patentable over the cited references.

Claim 38, recites, in part, “providing a fiber-cement panel having a thickness of approximately 0.25-0.625 inch; placing a fiber-cement panel between a punch assembly and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches coupled to the punch plate, and the support assembly having a support plate with a

plurality of holes; and driving the punches through at least a portion of the thickness of the fiber-cement panel at least substantially simultaneously to form a plurality of tapered openings in the fiber-cement panel.” As discussed above, the combination of the cited references as a whole does not teach or fairly suggest punching holes in a fiber-cement panel to form a soffit. Therefore, claim 38 and claims dependent therefrom are patentable over the cited references.

Claim 42 recites, in part, “placing a fiber-cement panel between a punch assembly and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches having a first cross-sectional dimension coupled to the punch plate, and the support assembly having a support plate with a plurality of holes having a second cross-sectional dimension larger than the first cross-sectional dimension of the punches; and driving the punches through at least a portion of the fiber-cement panel at least substantially simultaneously to form a plurality of openings in the fiber-cement panel that have the first dimension of the punches at the first side of the panel and the second dimension of the holes at the second side of the panel.” As discussed above, the combination of the cited references as a whole does not teach or fairly suggest punching holes in a fiber-cement panel to form a soffit. Therefore, claim 42 and claims dependent therefrom are patentable over the cited references.

Claim 49 recites, in part, “placing the fiber-cement panel between a punch assembly and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches having a first cross-sectional dimension coupled to the punch plate, and the support assembly having a support plate with a plurality of holes having a second cross-sectional dimension larger than the first cross-sectional dimension of the punches; driving the punches along a punch stroke through at least a portion of the thickness of the fiber-cement panel at least substantially simultaneously to form a plurality of openings in the fiber-cement panel that have the first dimension of the punches at the first side of the panel and the second dimension of the holes at the second side of the panel; and pressing a compressible biasing element against the first side of the fiber-cement panel as the punches move along the punch stroke.” As discussed above, the combination of the cited references as a whole does not teach or

fairly suggest punching holes in a fiber-cement panel to form a soffit. Therefore, claim 49 and claims dependent therefrom are patentable over the cited references.

New claim 62 recites “placing a fiber-cement panel between a punch assembly and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches coupled to the punch plate, and the support assembly having a support plate with a plurality of holes therein corresponding to the arrangement of the punches; driving the punches along a punch stroke through at least a portion of the fiber-cement panel to form a plurality of openings therein; and pressing a plurality of resilient biasing elements against the first side of the fiber-cement panel as the punches move along the punch stroke, *each of the resilient biasing elements having an end and at least one lateral peripheral surface that is unconstrained to allow for outward lateral displacement thereof when the end is pressed against the first side.*” None of the cited references discloses or fairly suggest the above limitations. In particular, Hugo does not disclose or fairly suggest the limitations of “each of the resilient biasing elements having at least one lateral peripheral surface that is unconstrained to allow for lateral displacement thereof when the end is pressed against the first side.” In contrast, Hugo clearly teaches away from such limitations because the annular insert 50 is volumetrically confined so that it cannot expand outwardly laterally. (Hugo, col. 3, lines 42-46). In fact, Hugo requires this confinement of the insert 50 so that it is displaced inwardly to bear against the nib to help prevent the nib from breaking during punching. (Hugo, col. 1, lines 40-45). Therefore, claim 62 and claims dependent therefrom are patentable over the cited references.

New claim 71 recites “*placing a fiber-cement panel between a punch assembly positioned in a retracted position and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches coupled thereto, a resilient biasing element attached to at least one of the punches, and the support assembly having a support plate with a plurality of holes therein corresponding to the arrangement of the punches; and driving the punches along a punch stroke against the first side of the fiber-cement panel through at least a portion of the fiber-cement panel to form a plurality of openings therein; and compressing the resilient biasing element as the punches are driven along the punch stroke.*”

None of the cited references discloses or fairly suggest the above limitations. In particular, Hugo does not disclose or fairly suggest the limitations of “placing a fiber-cement panel between a punch assembly positioned in a retracted position and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches coupled thereto, a resilient biasing element attached to at least one of the punches.” In Hugo, the annular insert 50 is not attached to the nib, and the insert 50 is certainly not attached to the nib when the nib is in its retracted position. Therefore, claim 71 and claims dependent therefrom are patentable over the cited references.

With regard to the claim rejections under 35 U.S.C. § 112, ¶2, claim 25 has been amended to correct the typographical error pointed out by the examiner and to recite that the punches penetrate into the panel a depth of approximately 0.0625-0.1875 inch. Accordingly, the amendment to claim 25 is not for reasons related to patentability, but merely to correct a typographical error. In view of this amendment, the objection to the specification for failing to provide a proper antecedent basis under 37 C.F.R. § 1.75(d)(1) and M.P.E.P. § 608.01 is moot.

All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a timely Notice of Allowance are earnestly solicited.

Respectfully submitted,

DORSEY & WHITNEY LLP



Marcus Simon
Registration No. 50,258
Telephone No. (206) 903-8787

MS:sp

Enclosures:

Postcard
Check
Fee Transmittal Sheet (+ copy)

DORSEY & WHITNEY LLP
1420 Fifth Avenue, Suite 3400
Seattle, WA 98101-4010
(206) 903-8800 (telephone)
(206) 903-8820 (fax)

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